

REMARKS

Claims 1-39, 55, 57-62, 64-69, and 71-75 are now present in this application, with claims 40-54, 56, 63, 70 and 76-78 being cancelled without prejudice or disclaimer of the subject matter contained therein. Currently, claims 1, 14, 27, 40, 45 and 50 are independent.

Amendments do not Raise Any New Issues

In an effort to expedite prosecution, Applicants amended the independent claims to include an indication that **“at least one symbol in the dependent sequence is polysemous”**. Such amendments do not raise any new issues requiring further consideration and/or search as this language was previously presented and considered in now cancelled claims 56, 63, and 70. Thus, consideration and allowance of the amended claims is respectfully requested.

Discussion of Example Embodiments

In one example embodiment of the present application, morphing functions are combined with symbol sequencing by the use of dependent symbols. A dependent symbol is one which will trigger the use of morphing macros.

One example of a dependent symbol may be the **polysemous** (multi-meaning) “dinosaur” symbol. The dinosaur may represent many things, depending on how it is combined with other symbols. For example, it may represent “past tense” and thus may be used, in combination with other symbols forming other dependent symbol sequences (wherein at least one symbol in the dependent sequence, such as the dinosaur, is polysemous), to trigger the verb morphing macro to formulate the past tense of certain stored words.

For example, assuming that the taxi symbol is a first symbol entered by the user and the dinosaur symbol (a polysemous symbol) is the next symbol, the taxi symbol plus the dinosaur symbol **does not complete a**

regular symbol sequence. Thus, there is **no symbol sequence** of the taxi plus the dinosaur which **is stored in association with a word, message or phrase** which can be accessed. Accordingly, input of another symbol is awaited wherein, when the “ich” symbol is entered, the taxi, plus the dinosaur, plus the “ich” symbol is checked to see if it creates a regular symbol sequence. In this example, it does not.

However, the “ich” symbol is a dependent symbol, and it is part of a dependent symbol sequence (namely, a **sequence of symbols dependent upon** at least one other symbol). This system recognizes this, in essence substitutes the target of the dependent symbol sequence for the dependent symbol sequence to produce a regular symbol sequence. It therefore in essence substitutes the “wir” symbol for the “dinosaur plus ich” dependent symbol sequence, to form the sequence that would normally access the word “fahren”. However, the word “fahren” **is then retrieved, along with the appropriate morphing data** and the appropriate insertable morphing functions such that the word “fuhr”, the past tense of fahren, is then generated.

As such, a plurality of symbols are received, it is determined whether or not the plurality of symbols include a **sequence of symbols**, wherein **at least one symbol** in the dependent sequence **is polysemous dependent upon** at least one other symbol, and a stored word is then morphed in response to determining that the plurality of input symbols include a dependent sequence, to produce at least one modified form of the stored word.

Prior Art Rejections

Claims 1-39 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Steele et al. (the Steele ‘342 patent). This rejection is respectfully traversed.

Steele et al.

The Steele '342 patent is directed to an interactive communication system designed for users such as an aphasic patient. Aphasics typically have deficiencies, cannot easily understand language, and typically have problems with syntax. The device includes a display of a plurality of images, with each image being **a single meaning graphical representation** of a word or phrase (see figure 13E including the **single meaning** measuring cup for example, and/or the various symbols for the chef, the pouring, etc. of figure 13G).

As indicated above, aphasics typically have problems with syntax. Thus, as indicated in column 3 of the Steele '342 patent, the patent does deal with syntax. This syntax analysis typically is done in conjunction with two adjacent symbols, wherein **each symbol is a single meaning symbol and has a separate word associated with it** and wherein at least one of the words may be altered based upon **a single proceeding adjacent symbol** as discussed in column 4. Specifically, as discussed in column 5, if a dog and walk symbol are selected, the phrase "dog walks" will be output.

Distinctions over the Steele '342 Patent

The Steele '342 patent fails to teach or suggest at least a method including morphing a stored word corresponding to a symbol sequence ... in response to determining that the plurality of input symbols included a dependent sequence...wherein at least one symbol in the dependent sequence is **polysemous**. In the Steele '342 patent, **each symbol corresponds to a specific word** (the chef symbol corresponds to a chef, the pour symbol corresponds to a pouring action, the measuring cup symbol corresponds to a measuring cup, etc.). Thus, each symbol is "single-meaning" and thus is not multi-meaning or polysemous. Accordingly, the Steele '342 patent cannot anticipate independent claim 1, nor any of independent claims 14 and 27, in that each of the aforementioned claims have been amended to state that they are polysemous.

In initially rejecting now cancelled dependent claims 56, 63 and 70, the Examiner references Fig. 12a and 12b and the word drink. However, just like the symbols for “chef” and “pour” in Fig. 13g, a single meaning symbol for drink must also exist. In the Steele ‘342 patent, the “chef” symbol will never mean “to cook” for example, it will always mean “chef” no matter which other symbols it is used with. The Steele ‘342 patent only teaches linking single meaning symbols, and has nothing to do with creating symbol sequences using polysemous symbols whose meaning varies depending on the sequence.

Accordingly, withdrawal of the rejection of claims 1, 14 and 27 (and all claims dependent thereon) is requested.

Additional distinctions

Further, the Steele ‘342 patent fails to teach or suggest at least a method “determining whether or not the plurality of symbols include **a sequence of symbols dependent upon** at least one **other symbol**” as well as “morphing a stored word **corresponding to a symbol sequence** including the at least one other symbol”, as set forth in claim 1. In the Steele ‘342 patent, each symbol is **single meaning** and corresponds to a specific word (the chef symbol corresponds to only a chef, the pour symbol corresponds only to a pouring action, the measuring cup symbol corresponds only to a measuring cup, etc.). Although the patent does not specifically describe how this occurs, the system does appear to recognize which symbol corresponds to the **subject** and which symbol corresponds to the **verb**, and further appears to somehow correlate a singular verb form with a singular noun form (“the chef pours” as shown in figure 13G for example). Accordingly, **one symbol may thus in some way relate to another symbol**, and its corresponding word output may be modified. However, this kind of a system as set forth in the Steele ‘342 patent still fails to meet the claim limitations of claim 1.

In claim 1, a plurality of symbols are input, and it is determined whether or not the plurality of symbols include **“a sequence of symbols**

dependent upon **at least one other** symbol". Thus, by referring to a "sequence of symbols", this clearly refers to at least two symbols being dependent upon at least one other symbol. In the example set forth in the Steele '342 patent, the pour symbol is not really dependent upon the chef symbol, but it is somehow related to the chef symbol. At best, however, only a single symbol, the "pour" symbol, changes its output (pours) based upon the chef single. Thus, in **the Steele '342 patent**, it is at best, **a one to one correspondence** and **not a sequence of symbols which is dependent** upon at least **one other symbol**.

To the contrary, for example, a dinosaur symbol may be **part of a dependent sequence** in the present application, and can represent past tense. But it is only **part of a dependent sequence, namely one of a plurality of symbols**. The user then can choose the dinosaur symbol if he desires past tense, and can then choose the ich symbol for example to be part of its dependent sequence. Accordingly, withdrawal of the rejection of claim 1 is requested. For at least somewhat similar reasons, withdrawal of the rejection of claims 14 and 27 is also requested.

In addition, the Steele '342 patent also fails to teach or suggest "morphing **a stored word** corresponding to a **symbol sequence** including the at least one other symbol", as claimed in claim 1. Thus, the word that is morphed is one which corresponds to a symbol sequence, **and not just a single symbol as shown in the Steele '342 patent**. For example, the Examiner argues that the word "pour" is morphed into the word "pours" in the Steele '342 patent. However, the **word "pour" corresponds only to the "single" pouring symbol**, and does not correspond to any type of symbol sequence. Accordingly, for at least such reasons, Applicants respectfully submit that the Steele '342 patent fails to teach or suggest the present invention as set forth in claim 1.

With regard to independent claims 14 and 27, these claims are allowable for reasons at least somewhat similar to those set forth in claim 1, although each claim should be interpreted solely based upon the limitations present therein. Accordingly, withdrawal of the rejection of each of

independent claims 1, 14 and 27, as well as the various dependent thereon, is respectfully requested.

Dependent Claim Arguments

Further, as set forth in claim 55, the **dependent sequence** of symbols **may not include a word corresponding thereto**, such as the dinosaur and ich symbol sequence not corresponding to any particular word. Further, as set forth in claim 59, the dependent sequence of symbols may include **at least one symbol only selected to control morphing**, for example, such as the dinosaur symbol controlling verb tense for example. Thus, for example, the symbol sequence of the dinosaur and the ich symbol is a sequence of symbols (more than one symbol) dependent upon at least one other symbol. There is no such sequence of symbols dependent upon at least one other symbol as shown in the Steele '342 patent. **Each symbol is single-meaning;** and each is independent of the others and independently stands for its own word. Accordingly, withdrawal of the rejection of these further dependent claims is respectfully requested.

Freeman '233 Patent

The Examiner has further rejected claims 40-54 and 76-78 under 35 U.S.C. § 102(b) as being anticipated by Freeman (the Freeman '223 patent). This rejection is respectfully traversed. This rejection has been rendered moot in view of the cancellation of claims 40-54 and 76-78.

CONCLUSION

Accordingly, in view of the above amendments and remarks, reconsideration of all outstanding objections and rejections and allowance of each of claims 1-39, 55, 57-62, 64-69, and 71-75 in connection with the present application is earnestly solicited.

Pursuant to 37 C.F.R. §§ 1.17 and 1.136(a), Applicants hereby petition for a one (1) month extension of time for filing a reply to the outstanding


non-final Office Action and submit the required \$60.00 (small entity) extension fee herewith.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Donald J. Daley at the telephone number of the undersigned below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

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